

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

Claims 17-30 were previously canceled without prejudice or disclaimer.

Claims 1 and 4-15 are canceled herein without prejudice or disclaimer.

Listing of Claims:

1. (Canceled)

2. (Previously Presented) A method as in claim 58, where each network node sends a neighbor advertisement to the access router to declare the link address allocated to individual ones of the at least one mobile network node.

3. (Previously Presented) A method as in claim 58, where the gateway mobile terminal sends at least one neighbor advertisement to the access router to declare the link addresses allocated to individual ones of the at least one mobile network node.

4-15. (Canceled)

16. (Previously Presented) A system comprising:

a mobile network having a gateway mobile terminal and at least one mobile network node; and

an access network comprising an access point, an access router and a link layer address manager configured to manage link layer addresses, said mobile network being connectable via the gateway mobile terminal to the access point, where the gateway mobile terminal is configured to send a request to the link layer address manager for information relating to a plurality of link layer addresses, to receive a response to the request and to allocate, based on the response,

individual ones of the plurality of link layer addresses to individual ones of the at least one mobile network node, where at least one of the gateway router or at least one mobile network node is configured to perform a neighbor discovery procedure with the access router to send at least one neighbor advertisement declaring at least one allocated link layer address.

17-30. (Canceled)

31. (Previously Presented) A mobile station comprising:

a transceiver configured to enable communication such that the mobile station functions as a gateway mobile terminal for being coupled between at least one mobile network node and an access point of an access network, where the mobile station and the at least one mobile network node belong to a mobile network; and

a data processor configured to send a request for information to a link layer address manager of the access network, wherein the information relates to a plurality of link layer addresses, and wherein the data processor is further configured, in response to receiving a response to the request from the link layer address manager, to allocate individual ones of the plurality of link layer addresses to individual ones of the at least one mobile network node.

32. (Previously Presented) A mobile station as in claim 31, where said data processor is operable to perform a neighbor discovery procedure with an access router of the access network to send at least one neighbor advertisement to declare a link layer address allocated to the at least one mobile network node.

33. (Previously Presented) A mobile station as in claim 31, where the information relating to a plurality of link layer addresses comprises a group identification, and where said data processor is operable to use the group identification to formulate a set of link layer addresses, individual ones of which are allocated to individual ones of the at least one mobile network node.

34. (Previously Presented) A mobile station as in claim 31, where the information relating to a plurality of link layer addresses comprises a set of link layer addresses individual ones of which are mapped to a hardwired address of individual ones of the at least one mobile network node.

35. (Previously Presented) A mobile station as in claim 31, where the information relating to a plurality of link layer addresses comprises a set of link layer addresses individual ones of which are mapped to a media access control address of individual ones of the at least one mobile network node.

36. (Previously Presented) A mobile station as in claim 31 where the request is made to obtain a set of link layer addresses, where the set of link layer addresses are associated with a first access point, and where said data processor further operates, in response to changing a connection of the mobile station from the first access point to a second access point, to send a message to reassociate the set of link layer addresses with the second access point.

37. (Previously Presented) A mobile station as in claim 33 where the group identification is associated with a first access point, and where said data processor further operates, in response to changing a connection of the mobile station from the first access point to a second access point, to send a message to reassociate the group identification with the second access point.

38. (Previously Presented) A mobile station as in claim 33 where the group identification is associated with a first access point, and where said data processor further operates, in response to changing a connection of the mobile station from the first access point to a second access point, to send a message to obtain another group identification that is associated with the second access point.

39. (Previously Presented) A mobile station as in claim 31, where a set of link layer addresses are tracked as a group.

40. (Previously Presented) A mobile station as in claim 31, where said mobile station comprises a

wireless device.

41. (Original) A mobile station as in claim 31, where said mobile station comprises a cellular telephone.

42. (Previously Presented) A mobile station as in claim 31, where said mobile station comprises a mobile router.

43. (Previously Presented) A program storage device storing a program of instructions executable by a data processor of a mobile station for performing operations, the operations comprising:

sending a request for information relating to a plurality of link addresses to a link address manager of an access network, where the mobile station comprises a gateway mobile terminal of a mobile network that further comprises at least one mobile network node, where the gateway mobile terminal is coupled between the at least one mobile network node and an access point of the access network;

receiving a response to the request from the link address manager; and

allocating, based on the response, individual ones of the plurality of link addresses to individual ones of the at least one mobile network node of the mobile network.

44. (Previously Presented) A program storage device as in claim 43, the operations further comprising: performing a neighbor discovery procedure with an access router of the access network to send at least one neighbor advertisement declaring the allocated individual ones of the assigned link addresses

45. (Previously Presented) A program storage device as in claim 44, where each mobile network node sends a neighbor advertisement to the access router to declare the link address allocated to the mobile network node.

46. (Previously Presented) A program storage device as in claim 43, where the request is made to obtain a set of link layer addresses that are allocated to individual ones of the at least one mobile network node.

47. (Previously Presented) A program storage device as in claim 46, where the set of link layer addresses are associated with a first access point, the operations further comprising, in response to changing a connection of the gateway mobile terminal from the first access point to a second access point, sending a message from the gateway mobile terminal to reassociate the set of link layer addresses with the second access point.

48. (Previously Presented) A program storage device as in claim 46, where the set of link layer addresses is tracked as a group.

49. (Previously Presented) A program storage device as in claim 43, where the request is made to obtain a group identification, where the operations further comprise using an obtained group identification to formulate a set of link layer addresses that are allocated to individual ones of the at least one mobile network node.

50. (Previously Presented) A program storage device as in claim 49, where the group identification is associated with a first access point, the operations further comprising, in response to changing a connection of the Gateway mobile terminal from the first access point to a second access point, sending a message from the gateway mobile terminal to reassociate the group identification with the second access point.

51. (Previously Presented) A program storage device as in claim 49, where the group identification is associated with a first access point, the operations further comprising, in response to changing a connection of the gateway mobile terminal from the first access point to a second access point, sending a message from the gateway mobile terminal to obtain another group identification that is associated with the second access point.

52. (Previously Presented) A program storage device as in claim 43, where the request is made to obtain a set of link layer addresses, where the operations further comprise mapping individual ones of the link layer addresses to individual hardwired addresses of individual ones of the at least one mobile network node.

53. (Previously Presented) A program storage device as in claim 43, where the request is made to obtain a set of link layer addresses, where the operations further comprise mapping individual ones of the link layer addresses to individual media access control addresses of individual ones of the at least one mobile network node.

54. (Previously Presented) A program storage device as in claim 43, where said mobile station comprises a wireless device.

55. (Previously Presented) A program storage device as in claim 43, where said mobile station comprises a cellular telephone.

56. (Previously Presented) A program storage device as in claim 43, where said gateway mobile terminal comprises a mobile router.

57. (Previously Presented) A program storage device as in claim 43, where said link address manager is associated with said access network.

58. (Currently Amended) A method as in claim 1, further comprising:

sending a request for information relating to a plurality of link addresses to a link address manager of an access network, where the request is sent by a gateway mobile terminal of a mobile network that further comprises at least one mobile network node, where the gateway mobile terminal is coupled between the at least one mobile network node and an access point of the access network;

receiving, by the gateway mobile terminal, a response to the request from the link address manager;

allocating, based on the response, individual ones of the plurality of link addresses to individual ones of the at least one mobile network node of the mobile network, where the allocating is performed by the gateway mobile terminal; and

performing a neighbor discovery procedure with an access router of the access network to send at least one neighbor advertisement declaring the allocated individual ones of the assigned link addresses.

59. (Previously Presented) A system as in claim 16, where at least one of the gateway router and the at least one mobile network node is configured to perform a neighbor discovery procedure with the access router to send at least one neighbor advertisement declaring at least one allocated link layer address.